1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

natives in their huts ſo much as the lice and fleas; the women ſuffer moſt from the former, by wearing very long, and ſometimes falſe hair. Mr. *Steller* was told, that near the ſea is found an inſect that reſembles a louſe, which working itſelf through the ſkin into the fleſh is never to be cured, unleſs by cutting the creature intirely out; and that the fiſhers are very much afraid of them.

It is remarkable that in *Kamtſchatka* there are neither frogs, toads, nor ſerpents. Lizards, indeed, are numerous enough, which the natives look upon as ſpies ſent from the infernal powers for information, and to foretel their death: therefore they are very careful whenever they find them to cut them into ſmall pieces, that they may never carry back news to the power which ſent them; and if it happens that the animal eſcapes alive, it throws them into the greateſt grief and deſpair, as they expect every hour to die, which indeed ſometimes happens from their own fear and deſpondency, and then ſerves to confirm the ſuperſtition to others.

CHAP. XII.

Of the TIDES *in the* Penſchinſka *Sea and Eaſtern Ocean.*

IT might perhaps appear ſufficient to ſay, that the tides are agreeable in theſe ſeas to what are obſerved in others; but as I made ſome obſervations which appeared to me new, I think it proper to communicate them.

It is a known rule in general, that the ebb and flood happen twice in the natural day, and that the tides are higheſt about the new and full moon: however, I do not recollect that it has been obſerved that the ebbs and floods are not equal here, or that they do

1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

142 punishment. Although in outward appearance they resemble the other inhabitants of *Siberia*, yet the *Kamtschadales* differ in this, that their faces are not so long as the other *Siberians'*, their cheeks stand more out, their teeth are thick, their mouth large, their stature middling, and their shoulders broad, particularly those people who inhabit the sea coast.

515 Their manner of living is slovenly to the last degree; they never
302 wash their hands nor face, nor cut their nails; they eat out of the
264 same dish with the dogs, which they never wash; every thing about them stinks of fish; they never comb their heads, but both men and women plait their hair in two locks, binding the ends with small ropes: when any hair starts out, they sow it with threads to make it lie close; by this means they have such a quantity of lice that they can scrape them off by handfuls, and they are nasty enough even to eat them. Those that have not natural hair sufficient wear false locks, sometimes as much as weigh ten pounds, which makes their heads look like a hay-cock.

962 They have extraordinary notions of God, of sins, and good
181 actions. Their chief happiness consists in idleness and satisfying
517 their natural lusts and appetites; these incline them to singing,
554 dancing, and relating of love stories Their greatest unhappiness
157 or trouble is the want of these amusements: they shun this by all methods, even at the hazard of their lives, for they think it more eligible to die than to lead a life that is disagreeable to them; which opinion frequently leads them to self-murder. This was so common after the conquest, that the *Russians* had great difficulty to put a stop to it. They are chiefly employed in providing what is absolutely necessary for the present, and take no care for the future. They have no notion of riches, fame, or honour; therefore covetousness, ambition, and pride, are unknown among them. On the other hand, they are careless, lustful, and
578 cruel: these vices occasion frequent quarrels and wars among them sometimes

5: Jochelson A-5 (1910-11) 1928 Kamchadal

consisted of myself, Mrs. Jochelson as assistant and physician to the party, and eleven laborers, of whom seven were Russians, three Kamchadals and one Japanese.

The Osernaya River, with its slanting bed, rocky banks, rapid falls and curves, forms a most difficult and dangerous route of travel. We had two boats and two canoes. One of the boats was for Mrs. Jochelson and myself; the other carried the tents, instruments, food and other supplies. The canoes served for reconnaissance and errands requiring despatch. It was very difficult to make progress on the turbulent river, particularly on the way up. Several times we had to disembark and carry our freight on our shoulders, while the boats were pulled by ropes through the rapids. (See Plate 5, figs. B, C.)

While there are no human habitations anywhere in the country, we were amazed to find well-beaten paths in the forests and on the mountains above the river, as if there were numerous human settlements. But realizing that these were roadways made by bears, we walked cautiously amid the dense vegetation with rifles ready for action. We did not see any bears while following these paths, but we heard the breaking and cracking of bushes and tree branches, and on the ground we found pieces of fresh salmon, the remnants of the bears' meals. The animals are very nervous and easily become alarmed. They have sufficient reason to be afraid of a man with a gun.

It is well known that at Lake Kuril and in its vicinity scores of bears are to be found. The abundance of fish and of many kinds of berries furnishes them ample food and favors their increase in number. The sparsity of human population is also favorable to the multiplication of the bears, although the few hunters of the coastal villages annually kill them by the hundreds.

After five days of painful effort we finally reached our destination. It was a windy day and our frail boats nearly capsized on the stormy lake, which is surrounded by the peaks of extinct volcanoes and by steaming hot sulphurous springs, the temperature of which reaches 100° C. (210° F.) and more. From our boat we observed steaming springs on the banks of the Osernaya when nearing the lake, but we had no time to stop to investigate them. We were told that the Kamchadal from Yavino and the Russians from Osernaya dig pits by the hot springs for bathing and curing different diseases. The temperature in these baths is reduced to 50° or 40° C.

From the head of the Osernaya River I directed my fleet to the Siwusk Cape (see map of Kuril Lake and Plate 5, fig. A). While excavating there we were entertained every day by the sight of bears fishing and gathering berries, particularly when we increased our field of observation by the use of opera glasses. The bears stood with their hind legs in the mountain rivers and creeks, and with their front paws managed to throw out on the banks the sea salmon, which in order to spawn ascend the rivulets that flow into the lake. The bears went after their prey and eating off the heads and spines, which are the most palatable parts of the fish, cast away the remainder. Their movements, turning, leaping and jumping, were so amusing that we could not restrain our laughter.

7:Lesseps T-3 (1787-88)1790 Kamchadal

361 conſideration were not provided with a church.

361 515 The next day we mounted our horſes and took the way to Natchikin, another oſtrog in the Bolcheretſk route. We were to ſtop a few days in the neighbourhood for the ſake of the baths, which M. Kaſloff had conſtructed at his own expence, for the benefit and pleaſure of the inhabitants, upon the hots ſprings that are found there, and which I ſhall preſently deſcribe. The way from Koriaki to Natchikin is tolerably commodious, and we croſſed without difficulty all the little ſtreams that fall from the mountains, at the foot of which we paſſed. About three-fourths of the way we met the Bolchaia-reka*; from the ſite of its greateſt breadth, which in this place is about ten or twelve yards, it appears to wind to a conſiderable extent to the north eaſt; we jour-

* A Ruſſian name which ſignifies, *large river.*

neyed

7:Lesseps T-3 (1787-88)1790 Kamchadal

000 neyed on its bank for ſome time, till we came to a little mountain, which we were obliged to paſs over in order to reach the village. A heavy rain which came on as we left Koriaki, ceaſed a few minutes after; but the wind having changed to the north-weſt, the heavens became obſcured, and we had abundance of ſnow; we were about two-thirds of our way, and it continued till
361 our arrival. I remarked that the ſnow al-
515 ready covered the mountains, even ſuch as were loweſt, upon which it deſcribed an equal line at a certain elevation, but that below them no traces of it were yet perceptible. We forded the Bolchaia-reka, and found on the other ſide the oſtrog of Natchikin, where I counted ſix or ſeven iſbas and twenty balagans, ſimilar to what I had ſeen before. We made no ſtay there, M. Kaſloff thinking it proper to haſten immediately to the baths, to which I was in-

7:Lesseps T-3 (1787-88)1790 Kamchadal

515 clined as much from curioſity as from neceſſity.

000 The ſnow had penetrated through my clothes, and in croſſing the river, which was deep, I had made my legs and feet wet. I longed therefore to be able to change my dreſs, but when we came to the baths our baggage was not arrived. We propoſed drying ourſelves by walking about the environs, and obſerving the intereſting objects which I expected to find there. I was charmed with every thing I ſaw, but the dampneſs of the place, added to that of our clothes, gave us ſuch a chilline ſs that we quickly put an end to our walk. Upon our return we had a new ſource of regret and impatience. Unable either to dry ourſelves or change our dreſs, our equipage not being arrived, to complete our misfortune, the place to which we had retired was the dampeſt we could have choſen, and though it

7:Lesseps T-3 (1787-88)1790 Kamchadal

000 it ſeemed ſufficiently ſheltered, the wind penetrated on every ſide. M. Kaſloff had recourſe to the bath, which quickly reſtored him; but not daring to follow his example, I was obliged to wait the arrival of our baggage. The damp had penetrated to ſuch a degree that I ſhivered during the whole night.

133
515
312
343 The next day I made a trial of theſe baths, and can ſay that none ever afforded me ſo much pleaſure or ſo much benefit. But before I proceed, I muſt deſcribe the ſource of theſe hot waters, and the building conſtructed for bathing.

They are two werſts to the north of the oſtrog, and about a hundred yards from the bank of the Bolchaia-reka, which it is neceſſary to croſs a ſecond time in order to arrive at the baths, on account of the elbow which the river deſcribes below the village. A thick and

[Natchikin (Nachiki?)--Analyst]

7:Lesseps T-3 (1787-88)1790 Kamchadal

133 and continual vapour aſcends from theſe
515 waters, which fall in a rapid caſcade from a
312 rather ſteep declivity, three hundred yards
343 from the place where the baths are erected. In their fall, which is in a direction eaſt and weſt, they form a ſmall ſtream of a foot and half deep, and ſix or ſeven feet wide. At a little diſtance from the Bolchaia-reka, this ſtream is met by another, with which it pours itſelf into this river. At their conflux, which is about eight or nine hundred yards from the ſource, the water is ſo hot that it is not poſſible to keep the hand in it for half a minute.

M. Kaſloff has been careful to erect his building on the moſt convenient ſpot, and where the temperature of the water is moſt moderate. It is conſtructed of wood, in the middle of a ſtream, and is in the proportion of ſixteen feet long by eight wide. It is divided into two apartments, each of ſix

or

7:Lesseps T-3 (1787-88)1790 Kamchadal

133 or ſeven feet ſquare, and as many high:
312 the one which is neareſt to the ſide of
515 the ſpring, and under which the water is
343 conſequently warmer, is appropriated for bathing; the other ſerves for a dreſſing-room; and for this purpoſe there are wide benches above the level of the water; in the middle alſo a certain ſpace is left to waſh if we be diſpoſed. There is one circumſtance that renders theſe baths very agreeable, the warmth of the water communicates itſelf ſufficiently to the dreſſing-room to prevent us from catching cold; and it penetrates the body to ſuch a degree, as to be felt even for the ſpace of an hour or two after we have left the bath.

We lodged near theſe baths in a kind of barns, covered with thatch, and whoſe timber work conſiſted of the trunks and branches of trees. We occupied two, which had been built on purpoſe for us, and

7:Lesseps T-3 (1787-88)1790 Kamchadal

177 The various conſtructions which M.
515 Kaſloff ordered for the greater convenience
757 of his eſtabliſhment, detained us two days
823 longer. Animated by a love of virtue and humanity, he enjoyed the pleaſure of having procured theſe ſalutary and pleaſant baths for his poor Kamtſchadales. The uninformed ſtate of their minds, or perhaps their indolence, would, without his ſuccour, have deprived them of this benefit, notwithſtanding their extreme confidence in theſe hot ſprings for the cure of a variety of diſ-
312 eaſes*. This made M. Kaſloff deſirous of aſcertaining the properties of theſe waters; we agreed to analyſe them, by means of a proceſs which had been given him for this purpoſe. But before I ſpeak of the reſult of our experiments, it is neceſſary to tranſcribe the proceſs, in order the better to trace the mode we adopted.

* Formerly they dared not approach theſe ſprings, or any volcano, from the idea that they were the abode of evil ſpirits.

Water

[The Governor-General of Okhotsk and Kamchatka--Analyst]

7:Lesseps T-3 (1787-88)1790 Kamchadal

476 bours, which is no ſmall proof of their zeal
157 to oblige, if we conſider the natural and ex-
461 treme ſlothfulneſs of their diſpoſition. An
515 active life would be inſupportable to them; and the greateſt happineſs, in their eſtimation, next to that of getting drunk, is to have nothing to do, and to live for ever in tranquil indolence. This is carried ſo far with theſe people, as frequently to make them neglect the means of providing the indiſpenſable neceſſaries of life; and whole families are often reduced to all the ſeverities of famine, becauſe they would not take the pains of providing in ſummer a reſerve of fiſh, without which they are unable to live. If they neglect in this manner the preſervation of their exiſtence, it is not to be ſuppoſed that they are more attentive to the article of cleanlineſs; it diſplays itſelf neither in their perſons, nor their habitations; and they may juſtly be reproached for being addicted to the contrary

7:Lesseps T-3 (1787-88)1790 Kamchadal

515/157 trary extreme. Notwithſtanding this careleſſneſs, and other natural defects, it muſt be regretted that their number is not more conſiderable; as, from what I have ſeen, and what has been confirmed to me by different perſons, if we would be ſure of finding ſentiments of honour and humanity in this country, it is neceſſary to ſeek for them among the true Kamtſchadales; they have not yet bartered their rude virtues for the poliſhed vices of the Europeans ſent to civilize them.

177/563 It was at Bolcheretſk that I began to perceive the effects of their influence. I ſaw the trace of European manners, leſs in the mixture of blood, in the conformation of features, and the idiom of the inhabitants, than in their inclinations and mode of life, which did not always diſcover any very conſiderable fund of virtue. This ſtriking difference between the inhabitants and

22: Guillemard T-2 (1882) 1886 Kamchadal

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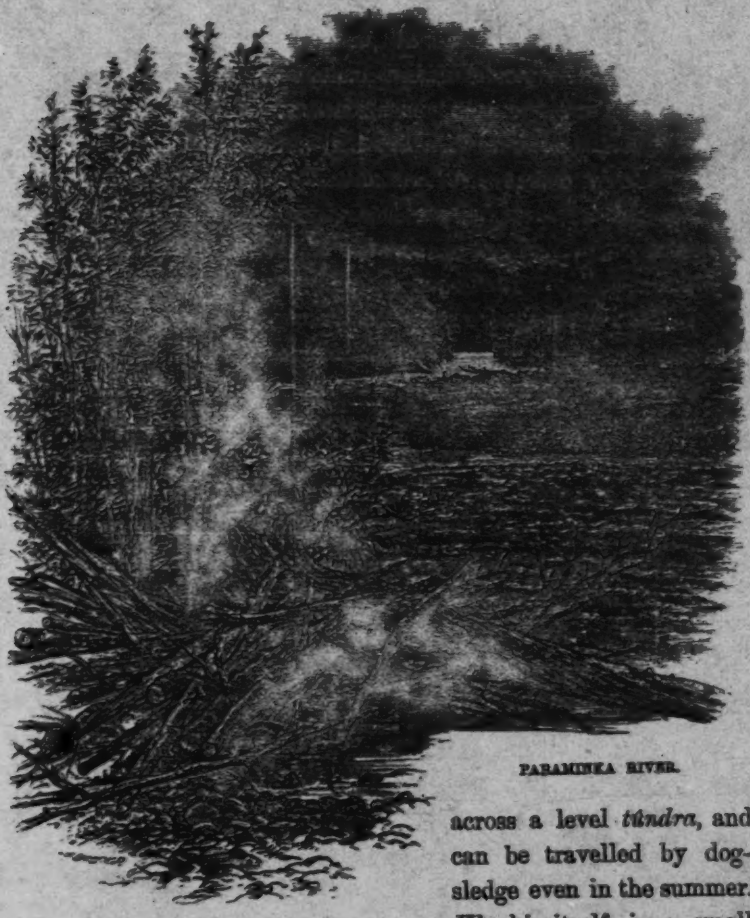
picturesque lake, across which we were conveyed in dug-out canoes to a small village on the opposite shore. From here the road lies



PARAMUSKA RIVER.

across a level *túndra*, and can be travelled by dog-sledge even in the summer. Kluchi itself is a small village composed of a few log-built huts and balagans, but, with its background of the Vilutchinska volcano, is prettily situated. It stands in an open valley, in which some attempts at cultivation are made. The hot springs—the steam from which is visible at some

22: Guillemard T-2 (1882) 1886 Kamchadal

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distance—have a temperature of about 108° Fahr., and appear to be nearly devoid of sulphur. They are much resorted to by the natives for cutaneous and other disorders, and have huts built over them for bathing purposes, thanks to the orders of the Ispravnik. Near the village runs a branch of the Avatcha River, down which our party paddled to the sea; and on arriving at the yacht we were pleased to learn that most of the horses had been brought into the settlement, and that there was every prospect of our starting on our long-planned expedition through the interior in the course of a couple of days.

22: Guillemard T-2 (1882) 1886 Kamchadal

000 sewn together. They admitted enough light, however, to show us the strange mixture of ornament that hung upon the walls. In the corner was the usual tawdry *eikon*, and facing it, a long array of clippings from the "New York Police News," full of the choicest
262 horrors of battle, murder, and sudden death! Amid these lively
136 surroundings we consumed our sour milk and bilberries, and
224 bargained for some potatoes and turnips, which appeared to be
241 grown here in some abundance. Much, no doubt, might be done in the way of agriculture in many parts of the country were it not that the fish-harvest and hunting take up so much of the peasants' time. Of their success in the latter line we had evidence in a fine pair of horns of the Argali or Bighorn,[1] which lay outside the hut, and had only recently been shot. These animals, we were told, are not easily obtained at this season, and do not exist in any great numbers in the neighbourhood; but in the winter they descend to the lower spurs of the mountains, and are more easily brought to
000 bag. We much desired to obtain a head and skeleton of this sheep, but our limited time, and Afanasi's statement that we should be able to get them on the sea-coast about sixty miles to the eastward of Avatcha Bay, eventually decided us on relinquishing the idea of hunting them in this neighbourhood. We were pleased, however, to be able to prove their existence in the interior, which has by some previous writers been doubted.

We pursued our journey in a steady downpour of rain, our track leading through coarse grass and other annual vegetation so thick that from the back of a horse it was utterly impossible to see any trace whatever of the way. Our two hunters had donned their waterproofs,—long coats made from the intestine of the seal, carefully sewn together with sinew. These garments are tolerably strong in a thornless country, and though not ornamental, are as light as a feather, and most effectual in keeping out rain. We
133 passed to the south of some hot springs, about two versts distant from
515 the village, the water of which was said to be of such a temperature

[1] *Ovis nivicola*, Eschscholtz.

[i.e. Narchiki--analyst]

22: Guillemard T-2 (1882) 1886 Kamchadal

133 515 that the hand could not be borne in it. Of these, as in Japan, there are many throughout the country, and they are greatly used for bathing purposes. At Malka, between Narchiki and Gunal, there is a spring of sulphurous water of great heat, in close proximity to another which is said even during the summer to stand steadily at the freezing point. We were, however, unable to visit it, and turned northward, passing across a *tundra* nine miles in length, and uninteresting enough in such weather. We had the pleasure, however, of seeing Vodki deposited in five feet of water in consequence of having fallen asleep upon his horse, but it must be confessed that our amusement was somewhat damped by discovering that our own personal baggage had suffered a like immersion.

We camped once more in a birch-wood, and but for the proximity of these trees we should have had no little difficulty in making a fire, as the forest was dripping wet. 322 824 531 The birch is to the inhabitant of northern regions very much what the bamboo is to the native of the south. It is his general-utility tree, and without it he would indeed be badly off. The stem is used in the construction of the sledges, and the inner bark is said to be cut green and used for food. From the knotty parts of the wood good spoons are made, while the multifarious uses to which the smooth and pliant bark is adapted in the construction of dishes, cups, and vessels of all kinds are so well known by every northern traveller as to need no description. The boxes are often much

BIRCH-BARK BOX.